

ABSTRACT

Fast macrodiversity switching (FMS) of channels that employ interleaving. The fast macrodiversity switching dynamically switches radio links used for traffic and control channels for a mobile station among a number of base transceiver stations (BTS) without switching the radio resource, using the same frequency and time slot combination (TDMA) in an environment where interleaving is occurring. The fast macrodiversity switching of channels and interleave processing is under control of an interleave manager which is distributed among zone managers. The control by the host and assistant zone managers includes switching down-link signals to and up-link signals from mobile stations among base transceiver stations which include broadcast channels (non-switched) and dedicated (switched) channels that employ interleaving. The dedicated channels are switched as frequently as a signal switch time which can be the frame rate of the up-link signals. The switch time is typically less than 1 second for mobile stations in a GSM system. The interleave processing is implemented in a GSM wireless system for TCH/FS Processing, FACCH/FS Processing and SACCH/FS Processing.